

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 78-102

NPDES PERMIT NO. CA0038407

AMENDING ORDER NO. 76-24 REGARDING  
CITY AND COUNTY OF SAN FRANCISCO  
NORTH POINT SEWERAGE ZONE  
WET WEATHER DIVERSION STRUCTURES

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The City and County of San Francisco, hereinafter called the discharger, presently discharges untreated domestic and industrial wastewater mixed with storm water runoff, all containing pollutants, into San Francisco Bay, a water of the United States through any of twenty (20) wet weather diversion structures in the North Point Sewerage zone. These discharges occur only when rainfall exceeds 0.02 inches per hour.
2. Order No. 76-24 required the discharger to reduce the frequency of discharge for diversion structures No. 9 through 17 to an average of one overflow event per year, to reduce the frequency of discharge for diversion structures No. 18 through 28 to an average of four overflow events per year and to undertake a citywide overflow control study to better define the cost and water quality benefits of facilities designed to achieve various overflow frequencies.
3. The discharger has undertaken an overflow control study and has requested the Regional Board to consider an increase in the allowable frequency of discharge for diversion structures No. 9 through 17 (Northshore outfall consolidation) from an average of 1 overflow per year to an average of 4 overflows per year. The discharger has indicated that it may request an increase in the allowable overflow frequency for diversion structures No. 19 through 28 at some future date.
4. The following table provides a comparison of improvement obtainable by reducing the average overflows from diversion structures No. 9 through 17 to four (4) and one (1) overflow per year compared to the existing average of 44 per year. Data was derived from the discharger's predictive computer model and are therefore approximations.

Number of Average Overflows Per Year	44 (existing)	4	1 (Order 76-24)
Minimum/maximum number of overflows per year	14/80	0/10	0/4
% of annual combined wastewater treated (avg.)	92%	99.0%	99.8%
% of annual combined wastewater which overflows (avg.)	8%	1.0%	0.2%
Volume of overflow (Million gallons/year, avg.)	570	60	10
Total hours of overflow per year (avg)	172 hrs	14 hrs	2 hrs
Minimum/maximum hours of overflow per year	61/304	0/40	0/11
Average duration of overflow (hours)	4.0 hrs	3.5 hrs	2 hrs
Composition of overflows (avg)			
% sewage	21%	17%	14%
% storm water	79%	83%	86%
% reduction in BOD <sub>5</sub> and Suspended Solids discharged from existing overflows (avg)		89%	98%
Average number of days nearshore water adjacent to discharge points exceed coliform standards for body contact recreation			
days greater than 1000 MPN/100 ml	93 days	15 days	4 days
days greater than 10,000 MPN/100 ml	54 days	7 days	1 day
Cost of facilities (millions of dollars) Northshore outfall consolidation (diversion structures No. 9-17)			
Capital cost (total)*		61	92
Storage		28	34
pumping		6	10
treatment		27	48
Annual cost		4.8	7.3

\*These costs are "cost to complete" and do not include the approximately \$33 million in storage facilities under construction.

5. Overflows will occur from storage structures which will be designed to provide for additional removal of settleable and floatable solids. Removal of these solids will provide further mitigation of the aesthetic and public health impacts over and above the mitigation provided by reduction in the frequency of overflows.
6. The discharger completed a final EIR/EIS for the Wastewater Master Plan in May 1974. The discharger completed a final EIR for the Northshore Outfall Consolidation Project in December 1975 which addressed overflows from diversion structures No. 9 through 17. This EIR identified potential adverse water quality impacts from this project related to seismic activity and the project has been modified to mitigate this potential impact. However, the discharger has determined that while an annual overflow frequency level of 4 overflows would not be a substantial change in the environmental effects requiring a formal EIR amendment, it does require an administrative amendment to the final EIR. Upon completion of this amendment, the Board will review any adverse water quality impacts identified, and if necessary, make appropriate revisions of this Order.
7. The Board has notified the discharger and interested agencies and persons of its intent to amend Order No. 76-24 and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
8. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
9. The combined sewer collection system of San Francisco, designed to transport both sanitary and storm flows, presents a unique problem regarding total compliance with the Basin Plan prohibition against the discharge of untreated waste. The Basin Plan recommends that exceptions to compliance be allowed for wet weather discharges, provided that beneficial uses are not adversely affected; however, a specific exception clause was not included. It is clear that the intent of the Basin Plan is to allow exceptions and this Board will consider inclusion of a specific exception clause during the next Basin Plan updating.
10. Based upon the presently available planning information contained in these findings and evidence presented at the public meeting concerning the cost differences of facilities necessary to achieve specific overflow frequencies and the water quality benefits derived from construction of those facilities and considering the location and intensity of existing beneficial uses; a long term average of 4 overflows per year for diversion structures No. 9 through 17, will provide adequate overall protection of beneficial uses; provided however that further study to comply with discharge prohibitions No. A.2 and A.3 is required by the discharger where existing discharge points are located in confined areas which do not have adequate exchange with bay water and may not provide adequate protection of adjacent nearshore beneficial uses. Further mitigation may be required in the future, after facilities are placed in operation, if it is determined that beneficial uses are not to be adequately protected.

IT IS HEREBY ORDERED, that Order No. 76-24 is amended as follows:

A. Finding No. 8, page 2, is deleted.

B. Discharge prohibition A.1., page 3, is changed to read:

1. Discharge of untreated waste to waters of the State is prohibited with the exception of allowable overflows as defined below. The City shall design and construct facilities for diversion structures No. 9-17 to achieve a long term average of 4 overflows per year from these facilities and to design and construct facilities for diversion structures No. 18-27 to achieve a long term average of 4 overflows per year from these facilities. These long term overflow frequencies shall not be used to determine compliance or noncompliance with the exception. Allowable overflows from these facilities are defined as those discharges which occur when all of the following criteria are met:

- a. All storage capacity within a storage facility is fully utilized; and
- b. Maximum installed pumping capacity or some lower rate based on limits of downstream transport or treatment capabilities is being utilized to withdraw flows from the storage facility; and,
- c. All citywide treatment facilities, excluding the Golden Gate Park reclamation facility, are being operated at capacity or at some lower rate consistent with the maximum withdrawal and transport rates.

Overflows which occur when criteria a-c are not being met shall be considered violations of this discharge prohibition.

C. Provisions No. 3 through 9, pages 4 through 8, are deleted and replaced with the following:

3. The discharger shall comply with the following time schedules to assure compliance with the discharge prohibitions and provisions of this Order:

a. Compliance with Discharge Prohibitions A.1. and Provision B.1:

(1) Diversion structures No. 9 through 17.

<u>Task</u>	<u>Completion Date</u>
(a) Tunnel (Contract N-1)	
. advertise for construction bids	by March 15, 1979
. receive bids	by May 15, 1979
. notice to proceed with construction	by July 15, 1979
. complete construction	by December 31, 1981
(b) North Point Street (Contract N-2)	

- advertise for construction bids by February 15, 1979
  - received bids by April 15, 1979
  - notice to proceed with construction by June 15, 1979
  - complete construction by December 31, 1981
- (c) Local sewers and structures and facilities to reduce floatables in overflows (Contract N-2A)
  - advertise for construction bids by forthwith
  - authorize start of construction by forthwith
  - complete construction by December 31, 1981
  - submit time schedule for first two tasks by June 1, 1979
- (d) Embarcadero (Contract N-3)
  - complete construction by October 15, 1979
- (e) Marina (Contract N-4)
  - complete construction by December 15, 1979
- (f) North Point Pump Station (Contract N-5)
  - complete construction by August 8, 1980
- (g) North Point plant conversion for wet weather treatment
  - submit detailed time schedule for planning, design and construction by forthwith
- (h) Compliance
  - interim operation utilizing the North Point Plant by December 31, 1981
  - full compliance by two months after completion of Southeast Water Pollution Control Plant or by July 1, 1983, whichever occurs earlier
- (2) Diversion structures No. 18 through 28

<u>Task</u>	<u>Completion Date</u>
(a) Berry Street (Contract C-1):	
• complete construction	by September 13, 1979
(b) 4th and King Streets (Contract C-2):	
• complete construction	by November 21, 1978
(c) Embarcadero (Contract C-3):	
• complete construction	by December 19, 1979

(d) South channel (Contract C-4):

- . complete construction by October 25, 1979
- (e) Submit time schedule for construction of additional facilities necessary for compliance. by forthwith
- (f) Full compliance by July 1, 1983,  
An enforcement time schedule order or cease and desist order will be considered if the Board finds that full compliance cannot be achieved by July 1, 1983, and if the submittal pursuant to 3.a.(2).e. documents a later compliance date.

b. Compliance with Discharge Prohibitions A.2. and A.3. or demonstrate an exception is warranted:

<u>Task</u>	<u>Completion Date</u>
(1) Hire consultant to perform necessary studies	by forthwith
(2) Commence studies	by forthwith
(3) Submit study report with findings, recommendations and supporting information	by May 1, 1979
(4) Provide time schedule for compliance if Board denies exception	by forthwith

c. Compliance with Prohibition A.4: immediately upon adoption of this Order

4. The City and County of San Francisco is required to submit to the Regional Board by the first day of every month a report, under penalty of perjury, on progress towards compliance with this Order. Said report shall include the status of progress made toward compliance with all tasks of this Order. If noncompliance or threatened noncompliance is reported the reasons for noncompliance and an estimated completion date shall be provided.
5. This Order includes items 1, 4, and 5 of the attached "Reporting Requirements," dated August 8, 1973.
6. This Order includes all items of the attached "Standard Provisions," dated August 8, 1973.

7. The long term average overflow frequency prescribed in this Order is based on information available at the time of adoption of this Order. Changes in the location, intensity or importance of affected beneficial uses or demonstrated adverse impacts as a result of operation of the constructed facilities, may require a reevaluation of the analysis and the construction of additional facilities or modifications to the operation of existing facilities.
8. This Order expires on March 1, 1981, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.
10. The City and County of San Francisco shall perform a self-monitoring program in accordance with the specifications prescribed by the Executive Officer of the Regional Board. The City and County's Health Department is requested to post warning signs on all beaches and shellfish areas when designated by the Regional Board affected by the wet weather overflows for a period of time commencing with the day of overflow and continuing until the water analyses indicate the water quality of the affected areas have recovered and are meeting bacteriological standards for water contact sport recreations in the beach areas or bacteriological standards for shellfish harvesting in shellfish areas, whichever is longer.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 21, 1978.

FRED H. DIERKER  
Executive Officer

Attachments:

Reporting Requirements 8/8/73  
Standard Provisions 8/8/73